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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/800,011	03/15/2004	Jukka Schaerlund	037141.53293US	6815
23911	7590	11/21/2005	EXAMINER	
CROWELL & MORING LLP INTELLECTUAL PROPERTY GROUP P.O. BOX 14300 WASHINGTON, DC 20044-4300			HOPKINS, ROBERT A	
			ART UNIT	PAPER NUMBER
			1724	

DATE MAILED: 11/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/800,011

Applicant(s)

SCHAERLUND ET AL.

Examiner

Robert A. Hopkins

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 20 is/are allowed.
- 6) ☒ Claim(s) 1,7-9 and 12-19 is/are rejected.
- 7) ☒ Claim(s) 2-6,10 and 11 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 9-1-04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the inlet which has a variable size inlet opening in claim 9, and the housing formed primarily by an A pillar of a motor vehicle in claim 13 and the housing is formed primarily by body parts or frame parts of a motor vehicle in claim 14 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

Claims 16-19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 16 line 6 and claim ¹⁸~~16~~ line 5 recites "the connecting element". There is a lack of antecedent basis for "the connecting element" in previous claim limitations. Correction is requested. Claim 17 depends on claim 16 and is also rejected. Claim 19 depends on claim 18 and hence is also rejected.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1,7,8,12-15 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Krisco et al(2003/0217534).

Krisco et al teaches an air filter system for filtering a flow of intake air for a combustion engine comprising a tubular housing(2) having an inlet arranged in the housing for introducing unfiltered air to be cleaned by filtration, an outlet(3) arranged in the housing for discharging clean filtered air, and an opening for changing the filter, a

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cover(7) for closing the filter changing opening, and a filter arrangement between the inlet and the outlet such that the air from the inlet must pass in a direction of flow through the filter arrangement to reach the outlet, wherein the filter arrangement comprises at least one prefilter(8), one main filter(22), and one secondary filter(20) arranged in axial succession in the direction of flow in the housing. Krisco et al further teaches wherein the cover includes position fixing means(70,71) for preventing improper installation of at least one filter element and changes in position of the at least one filter element during operation. Krisco et al further teaches wherein the position fixing means comprises a radially inwardly extending curved portion on the cover. Krisco et al further teaches wherein the housing is made of centrifugally cast synthetic resin material. Krisco et al further teaches wherein the housing is formed primarily by an A pillar of a motor vehicle. Krisco et al further teaches wherein the housing is formed primarily by body parts or frame parts of a motor vehicle. Krisco et al further teaches wherein the housing is constructed as an external free standing or horizontal element freely mountable on a motor vehicle body or an internal combustion engine of a motor vehicle.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sexton et al(2853153) taken together with Krisco et al(2003/0217534).

Sexton et al teaches an air filter system for filtering a flow of intake air for a combustion engine comprising a rectangular housing(10) having an inlet arranged in the housing for introducing unfiltered air to be cleaned by filtration, an outlet(11) arranged in the housing for discharging clean filtered air, and an opening for changing the filter, a cover(27) for closing the filter changing opening, and a filter arrangement between the inlet and the outlet such that the air from the inlet must pass in a direction of flow through the filter arrangement to reach the outlet, wherein the filter arrangement comprises at least one prefilter(31), one main filter(20), and one secondary filter(20) arranged in axial succession in the direction of flow in the housing(see figure 2).

Sexton is silent as to wherein the housing is tubular. Krisco et al teaches an air filter system for filtering a flow of intake air for a combustion engine comprising a tubular housing and a prefilter, main filter, and secondary filter, within the housing. It would have been obvious to someone of ordinary skill in the art at the time of the invention to substitute a tubular housing for a rectangular housing to provide for the air filter system having functionality within vehicles having non-rectangular areas for placement of the air filter system.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Krisco et al(2003/0217534).

Krisco et al teaches all of the limitations of claim 9 but is silent as to wherein the inlet has a variable size inlet opening , and the separation efficiency of the prefilter is

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matched to the size of the inlet opening. Examiner respectfully submits that the use of an apertured screen or baffle which is placed completely or partially over the inlet to an air cleaning device is well known in the filtration art, therefore it would have been obvious to someone of ordinary skill in the art at the time of the invention to provide an inlet which has a variable size inlet opening in Krisco et al so that a predetermined amount of airflow enters the prefilter.

Allowable Subject Matter

Claims 2-6,10,11,16-19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim 2 recites "wherein the prefilter comprises at least two parallel cyclone separators, the main filter is an annular filter element, and the secondary filter is also an annular filter element, and wherein the main filter has a first end disk in the direction of flow which is closed and carries a handle, and the secondary filter has a second end disk in the direction of flow which is closed". Krisco et al teaches a first filter element and a flat, pleated secondary filter. It would not have been obvious to someone of ordinary skill in the art at the time of the invention to provide a secondary filter which is also an annular filter element, and wherein the main filter has a first end disk in the direction of flow which is closed and carries a handle, and the secondary filter has a second end disk in the direction of flow which is closed because Krisco et al does not suggest such a modification. Claims 3-6 depend on claim 2 and hence would also be allowable upon incorporation of claim 2 into claim 1.

Claim 10 recites "wherein said housing further comprises means for accommodating functional elements, and means are provided in the interior of the housing for optionally supplying electrical power to the functional elements from an electrical power source arranged outside the housing". Krisco teaches a housing with no means for accommodating functional elements. It would not have been obvious to someone of ordinary skill in the art at the time of the invention to provide means for accommodating functional elements, and means are provided in the interior of the housing for optionally supplying electrical power to the functional elements from an electrical power source arranged outside the housing because Krisco et al does not suggest such a modification. Claim 11 depends on claim 10 and hence would also be allowable upon incorporation of claim 10 into claim 1.

Claim 16 recites "wherein said main filter element is an annular filter element with a first end disk in the direction of flow which is closed...". Krisco et al teaches a main filter element(22) which is a straight through flow type filter element. It would not have been obvious to someone of ordinary skill in the art at the time of the invention to provide wherein said main filter element is an annular filter element with a first end disk in the direction of flow which is closed because Krisco et al does not suggest such a modification. Claim 17 depends on claim 16 and hence would also be allowable upon incorporation of claim 16 into claim 1.

Claim 18 recites "wherein said secondary filter element is an annular filter element with a first end disk in the direction of flow which carries an axially extending handle...". Krisco et al teaches a secondary filter element(20) which is a straight

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through flow type filter element having an axially extending handle(212,214). It would not have been obvious to someone of ordinary skill in the art at the time of the invention to provide wherein said secondary filter element is an annular filter element with a first end disk in the direction of flow which carries an axially extending handle because Krisco et al does not suggest such a modification. Claim 19 depends on claim 18 and hence would also be allowable upon incorporation of claim 18 into claim 1.

Claim 20 is allowed.

The following is a statement of reasons for the indication of allowable subject matter:

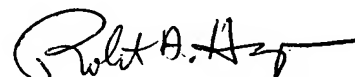
Claim 20 recites "subsequently passing precleaned air from the cyclone separator radially through a main filter element from the outside to the inside, thereafter passing air from the main filter element radially through a secondary filter element from the inside to the outside". Krisco et al teaches a main filter element and secondary filter element which are both straight through flow type filter elements. It would not have been obvious to someone of ordinary skill in the art at the time of the invention to provide a step of subsequently passing precleaned air from the cyclone separator radially through a main filter element from the outside to the inside, thereafter passing air from the main filter element radially through a secondary filter element from the inside to the outside because Krisco et al does not suggest such a modification.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert A. Hopkins whose telephone number is 571-272-1159. The examiner can normally be reached on Monday-Friday, 7am-4pm, alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on 571-272-1166. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Rah
November 16, 2005


ROBERT A. HOPKINS
PRIMARY EXAMINER